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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,143

09/09/2004

Harald Breivik

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06/05/2009

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EXAMINER

DEES, NIKKI H

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,143	Applicant(s) BREIVIK ET AL.	
	Examiner Nikki H. Dees	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-17 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-17 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 30, 2009, has been entered.
2. Claims 7-17 and 21-26 are currently pending in the Application. The previous 102 rejection of claims 7-12 and 14 over Breivik et al. has been withdrawn in view of Applicant's amendments to claim 7.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249).

5. Breivik et al. teach a method of farm raising fish comprising feeding them food comprising by weight 25-70 % protein, 5-60 % lipids, 0-40 % carbohydrates and 0-15 % additional components (p. 3 lines 10-17, claim 9). The lipids in the food comprise fish oil that has been treated with urea (claim 10). The oil may be treated by heating with the urea, or by reacting the oil with a mixture of urea and water. In example 8, the oil is heated with urea and kept at 140°C for 20 minutes (Examples 5 and 8).

6. Regarding Applicant's amendments to claim 7 requiring the nitrogen-containing compound to be sufficient to reduce the susceptibility of the feed to degradation through oxidation, it is noted that the teachings of Breivik et al. speak their invention where oils treated by urea are less exposed to oxidation and degradation than untreated oils, resulting in a feed that may be stored longer than feed with untreated oils (p. 12 lines 18-23).

7. Breivik et al. teach that the urea is removed from the oil when the oil is pretreated (Example 7). They further teach that the urea may be added directly to the food (p. 3 lines 23-25). Additionally, the feed taught by Breivik et al. comprises antioxidants including tocopherol and ascorbic acid (Example 3).

8. Breivik et al. are silent as to their method being used for feeding a marine species.

9. The method of Breivik et al. is taught for use with farm-raised fish, specifically salmon. While salmon are not, technically, marine species, one of ordinary skill would have recognized that salmon that are farmed are living in the ocean, as are marine species of fish. One of ordinary skill would have had a reasonable expectation that a

method for feeding salmon feed comprising oils treated with urea in order to reduce the feed's susceptibility to degradation would have had the same beneficial effects in feeding to marine species of fish. The change in the target fish for the method of farm raising salmon as taught by Breivik et al. would have been obvious to one of ordinary skill wishing to improve the stability of the feed being fed to farmed fish. There would have been no undue experimentation required to feed the feed of Breivik et al. to species other than salmon.

10. Claims 13, 15-17 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249) with evidence provided by Food Day (Global Gourmet, March 7, 1997).

11. Breivik et al. teach a method for farming fish comprising feeding them a food as detailed above.

12. Breivik et al. are silent as to their method being used for fry, cod or halibut, and to the food not containing carotenoids.

13. One of ordinary skill in the art at the time the invention was made would have recognized that the carotenoids as taught in the invention of Breivik et al. were included for the purpose of imparting color to farmed salmonoids that in the wild obtain their distinctive flesh coloring from their diet. The artisan would recognize that cod and halibut are white-fleshed fish, as shown by Food Day, and therefore it would not be desirable to include carotenoids in their diet. The omission of carotenoids from the food as taught by Breivik et al. would not have required undue experimentation on the part of

the artisan. Additionally, given that the protein, lipid, carbohydrate and antioxidant content of the food would remain essentially the same as that of Breivik et al., one of ordinary skill would have a reasonable expectation that the food without the carotenoids would continue to serve as an acceptable diet for all of cod, halibut and fry.

Response to Arguments

14. Applicant's arguments filed March 30, 2009, have been fully considered but they are not persuasive.

15. Applicant argues (Remarks, pp. 5-6) that the object of Breivik is to protect the pigment contained in the feed for salmon. Applicant goes on to argue that Breivik's invention fails to address the ongoing oxidation of the feed (Remarks, pp. 7-8).

16. The Examiner agrees that protecting the pigment in the feed is one of the objects of the invention of Breivik. The examiner notes, though, that the invention of Breivik has more than one object, with a second object noted as the stabilization of vegetable and animal oils by treatment in the presence of urea (Abstract). These improvements in the oils during processing lead to an increased stability (i.e. increased resistance to oxidation and resultant degradation) of the oils during subsequent storage (p. 12 lines 8-10). It is this second object of the invention of Breivik that appears to be the same object that Applicants are presently claiming as a novel and unobvious aspect of the instant invention.

17. Regarding the 103 rejection over Breivik with additional evidence provided by Food Day, Applicant argues that Breivik is concerned with unstable pigments, not stabilized oils as is the subject of the instant invention and that there is no incentive to use the invention of Breivik when it is not necessary to protect pigments from oxidation (Remarks, p. 9).

18. Applicant is directed to Breivik p. 3 lines 5-6, wherein "The main object of the invention is to provide a method for stabilizing vegetable and animal oils with regard to oxidation." As detailed above in the rejection of claims 7-12, the instant application treats their oil with the same method as taught by Breivik. The omission of the carotenoids included in the invention of the prior art would have been obvious if one of ordinary skill desired to feed the fish food to white-fleshed fish, like cod or halibut as evidenced by Food Day, where a pink-hued flesh is not desired. Again, Breivik specifically speaks to the increased stability during storage of feeds made with the treated oils (p. 12 lines 8-14). This improved stability would have benefits to the feed producer and fish farmer, regardless of the presence of the pigments in the feed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-

3435. The examiner can normally be reached on Monday-Friday 7:30-5:00 EST
(second Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./
Examiner, Art Unit 1794
/Lien T Tran/
Primary Examiner, Art Unit 1794

Nikki H. Dees
Examiner
Art Unit 1794